I have now little doubt that the figure of the skeleton by Cuvier and the skull which my son-in-law brought from Pará, on which I founded *A. problematicus*, belong to *A. flaccidus*. We have also a skeleton which appears to belong to the same species in the British Museum.

5. Catalogue of the Land-shells inhabiting Polynesia, with Remarks on their Synonymy, Distribution, and Variation, and Descriptions of New Genera and Species. By W. Harper Pease, C.M.Z.S.

[Received April 4, 1871.]

The geographical limits of Polynesia may be determined from the distribution of its land-shells, as distinctly as by that of its marine mollusca and zoophytes. They characterize it as being a distinct zoological province, separate from the East-Indian.

It is not only the largest in extent, but the most isolated in position of any on the surface of the earth. Stretching over nearly one fourth of the whole circumference of the globe, and from one extreme of the tropics to the other, it is separated by a wide expanse of ocean on three of its sides, north, east, and south, from the nearest provinces. On the extreme west, at the Pelew Islands, it comes into contact with the Philippines, and a short distance south, at the Samoas, with the Papuan Islands.

I do not propose to enter into a critical examination of the distribution and variation of the several genera and species, their relation to those inhabiting the neighbouring provinces and their probable origin, as it would involve the discussion of several collateral questions, such as the origin of the islands, their topography, formation of valleys, &c., which I am not at present prepared to enter on.

As to general distribution I note the following facts. In West Polynesia, comprising the Pelews, Ladrones, Caroline, Ralick, and Radack groups, a few East-Indian types have entered, but do not prevail, the Polynesian predominating. Of *Helices* two species of the large Philippine forms occur, viz. *H. pelewana*, Pfr., at the Pelews, and *H. sowerbyana*, Pfr., at Hogoleu. All the others are of Polynesian types.

The genus *Pitys*, so prolific in species throughout all other parts of Polynesia, is not represented by a single species. *Partulæ* occur on all the islands.

Of operculated genera the East-Indian Diplommatinacea are represented by the genus *Palaina* at the Pelews, and one species at Ponape; they extend no further. All the species of *Omphalotropis* are of the East-Indian type, carinate at the umbilicus, and more or less varied with colours. One species referred to *Cyclophorus* and one to *Cyclostomus*, both of doubtful genera, have been found at

Hogoleu. The genus *Registoma* is represented by a single species. All the above East-Indian forms occur on the most westerly islands, which have not been thoroughly explored; I anticipate that, when searched, they will yield a much larger proportion of Polynesian species, for the reason that these are of small size, and have escaped the notice of inexperienced collectors.

Passing south over the Tarawan Islands (Kingsmill), all of which are low atolls, we arrive at the Samoas, the nearest group in Southern Polynesia to the Papuan Islands; it has yielded but a small number of species, although it has been explored by several persons within the past ten years*; they are all peculiar or of Polynesian types. Going on east to the Tahitian, Hervey, Austral, Paumotus, and Marquesan groups, comprising over one half of all the Polynesian islands, we find them inhabited by pure Polynesian forms.

The genus *Partula* here attains to its highest development; also *Pitys* and other genera of *Helicinæ*. All the operculated genera, with the exception of the cosmopolitan genera *Helicina* and *Truncatella*, are peculiar. The type of *Omphalotropis*, Pfr., does not extend to this part of Polynesia; but the genus is represented by several peculiar varieties which I have distinguished under the subgeneric names of *Scalinella*, *Atropis*, and *Cyclomorpha*.

The genus *Diadema*, Pse., is confined to the Hervey group; and *Chondrella*, Pse., is widely spread over the several islands. Two of the genera characteristic of the Polynesian fauna appear to have passed over to the Papuan Islands, viz. *Partula* and *Pitys*; of the former, nineteen species have been described from those islands. With one or two exceptions they are of simple bulimiform shape, and may not, at least all, prove to belong to the genus. Thirty-five or more species of *Helices* have been described from the Papuan Islands, Australia, New Zealand, and Tasmania, under the genera *Patula*, *Discus*, &c., which are nearly related to the Polynesian genus *Pitys*. They are generally more planorboid in shape, with the aperture open and not laminate or dentate; their relation to the genus *Pitys* cannot be determined until the animals are examined and compared.

It appears, therefore, that while a few East-Indian types have entered and extend a short distance into Western Polynesia, as might be expected from their near contact on the south, the Polynesian genera have passed over to the Papuan Islands.

The Hawaiian Islands, on the northerly boundary of Polynesia, present several peculiarities in both their marine and land fauna, as might be supposed from their isolated position. Over two thirds of all the land-shells belong to the *Helicterinæ*, all of which are confined to that group of islands, as also the genera *Carelia* and *Catinella*. The several genera of *Helicinæ* are common with Southern Polynesia.

The only operculated genus is *Helicina*; while on the islands of Southern and Western Polynesia no less than sixteen occur. It is also the only locality in which the genera *Blauneria*, *Pedipes*, and *Ophicardelus* of the Melampinæ have been discovered.

* The Samoan Islands, in proportion to their size, are inhabited by a few more than one quarter of the number of species found at the Tahitian.

As to general variation I note one fact. The species of most of the genera inhabiting Southern and Western Polynesia, ranging over a distance of more than 5000 miles from the Pelews to the Marquesas, vary less from a common type than those on the Hawaiian Islands, which are restricted in their distribution to 300 miles. *Partula*, the prevailing genus of Southern and Western Polynesia, occurring on all the high islands, presents so little variation that not a single subgenus has been proposed; while at the Hawaiian Islands the genus *Helicter* varies more on any one of the islands, even the smallest, but eight miles in length, than the *Partulæ* throughout their whole range. I select the two genera above in illustration, as the species are the largest in size, and comprise together nearly one half of all the land-shells inhabiting Polynesia.

I now offer a few remarks on the genera, adding to each descriptions of such species as I find in my collection to be new.

Genus Pitys.

Pitys, Beck, Index Molluscorum, 1837, p. 9.

The above genus was established by Dr. Beck on *Helix oparica*, Anton, from the collection made by the late Mr. Cuming at the island of Rapa (Opara), one of the Austral group, a few hundred miles south of Tahiti. There is no doubt as to the identity of the species, although it was described by Dr. Anton as *H. oparica*, from America.

By reason of the similarity between the shells of certain species discovered since and those of the European genus *Discus*, Fitz.= *Patula*, Held., all the Polynesian forms have been described under the European genus; with few exceptions the shells are quite distinct, and the animal decidedly so; they are most numerous at the Hawaiian and Tahitian Islands, less so at the Samoas, and altogether absent in West Polynesia.

The species are quite uniform throughout their whole range. The following are their general characters:—

"Shell orbicular or planorboid, finely radiately ribbed; spire but slightly elevated; last whorl rounded at its periphery and also at the umbilicus, more or less openly umbilicate, rarely imperforate; aperture generally dentate or laminate; radiately striped or tessellated on their upper surface with reddish brown and yellowish, the stripes occasionally taking a zigzag form on the periphery and base; rarely wholly reddish brown; generally covered with a thin epidermis, which, on a few species, supports short hairs."

Only three species, so far as known, are imperforate, and those the smallest of the genus, viz. *imperforata*, Pse., *rotula*, Jacq., and *oparica*, Anton; of the 37 species in the following catalogue, the aperture of 29 is dentate or laminate. The following is the only variation from the type as above:—*H. stellula*, Gld., inhabiting the Hawaiian Islands, is depressed, carinate at the periphery, and strongly ribbed, and of a shining texture.

At the Tahitian Islands a group of species of an aberrant form

occur, represented by *H. bursatella*, Gld. They differ from the type in being angulate at the periphery, with the spire more elevated, and the whorls more plain. Their greatest peculiarity, and one by which they may be easily recognized, is the shape of the umbilicus, which becomes at maturity partly covered over by the base of the last whorl, thus becoming cavernous.

Two species have been described from Tahiti and the Hervey Islands, viz. *jacquinoti*, Pfr., and *fratercula*, Pse., which evidently belong to the above group, but are depressed and carinate at the periphery, corresponding in their variation to *stellula*, Gld., at the Hawaiian Islands. I add the following remarks on the synonymy of the species.

PITYS BURSATELLA, Gld.

Of this variable species I have had an opportunity of examining several hundred specimens, and have also received a full series selected from the collections of the American exploring expedition, and from the late Mr. Cuming's type specimens of *H. jacquinoti*, Pfr. The synonymy, as determined by Dr. Gould on the labels of distribution issued by the Smithsonian Institution, and adopted in the following catalogue, is correct, with the exception of *H. oceanica*, Guill., and *H. cavernula*, Jacq. Of the synonyms determined as above, *H. excavata*, Jacq., and *H. coarctata*, Pfr., are pure synonyms of the type; *H. streptaxon*, Roe, is an abnormal form, and *H. turricula*, Jacq., identically the same; *H. oceanica*, Guill., which I exclude from the synonymy, is described as being concavely depressed on its base; and no mention is made of the laminæ in its aperture, which are distinct and could not have escaped notice. Should the determination by Dr. Gould prove to be correct, *H. oceanica*, Guill., should have precedence over *H. bursatella*, Gld., having been described four years previously.

H. jacquinoti, Pfr. (*cavernula*, Jacq.), differs from *P. bursatella*, Gld., or any of its varieties, in being more depressed, acutely carinate at the periphery, without epidermis (surface somewhat shining), its ribs solid, more prominent, extending over the edge of the whorls in a serrated manner, and all the whorls depressedly grooved concentrically at their middle. I have met with no species of its type in collections from the Marquesas, and refer it therefore to Tahiti with a doubt. The only other species of its peculiar form is *P. fratercula*, Pse., inhabiting the Hervey Islands.

PITYS JUGOSA, Migh.

Helix jugosa, Migh. Proc. Boston Soc. 1845, p. 19.

Helix rubiginosa, Gld. Proc. Boston Soc. 1846, p. 171; Am. Exp. Ex. 1852, p. 50, fig. 49.

The above species ranges over all parts of the island of Kauai; it varies in being more or less openly umbilicate, and in the colour being either wholly reddish brown or tessellated with a dusky yellowish colour.

To the above genus I add the following new species:—

Pitys atiensis, Pse.

T. orbicularis, tenuiuscula, aperte umbilicata, radiatim conferte et subarcuatim costulata, supra et infra flavido et rufo tessellato-strigata; spira vix elevata, apice obtuso, sutura bene impressa; anfr. 5, convexi, ultimus ad peripheriam basinque rotundatus; apertura subcircularis, obliqua; perist. simplex, rectum.

Diam. 3, alt. $1\frac{3}{4}$ mill.

Hab. Insula Atiu.

P. modicella (Fér.) is the nearest allied species, from which it differs in being more openly umbilicate, the spire more elevated, and the colours differently disposed.

Pitys rotellina, Pse.

T. planorboidea, solidiuscula, anguste umbilicata, tenuissime radiatim striatula, supra planiuscula, vix elevata, apice depresso: anfr. 6, plano-convexi, ultimus ad peripheriam basinque rotundatus; apertura obliqua, lunaris, subcompressa, angusta; paries aperturalis lamella unica intrante munitus; perist. simplex, rectum; flavido et rufo alternatim undique strigata.

Alt. 1, diam. 2 mill.

Hab. Insula Aitutake.

Pitys imperforata, Pse.

T. imperforata, vel punctiformi-perforata, orbicularis, tenuiuscula, radiatim confertim et tenuissime costulata, flavido et rufo radiatim tessellato-strigata, strigis ad peripheriam basinque flexuosis; spira plano-convexa, apice obtuso, sutura impressa; anfr. 6, plano-convexi, strictim et lente accrescentes, fere æqualiter, ultimus ad peripheriam rotundatus, basin plano-convexus; apertura obliqua, lunaris, lamellis 4–5 munita, 2 in pariete aperturali, 2–3 in margine basali; perist. simplex; columella callosa, vix eversa.

Diam 4, alt. 2 mill.

Hab. Insula Aitutake.

Nearest allied to *P. rotula*, Jacq. It has more whorls, is distinctly radiately ribbed, and the reddish stripes extend over the base in zigzag shape.

Pitys roratongensis, Pse.

T. orbicularis, tenuiuscula, nitidiuscula, aperte umbilicata, radiatim conferte subflexuoso-costulata, flavido et rufo radiatim alternatim strigata, strigis ad peripheriam basinque undulatis; spira vix elevata, apice depresso, sutura bene impressa; anfr. $4\frac{1}{2}$, rotundato-convexi, leviter accrescentes, ultimus ad peripheriam basinque rotundatus; apertura obliqua, lunaris, lamellis 4 munita, 2 in pariete aperturali, 2 dentiformibus in margine basali; peristoma columellaque simplicia.

Diam. $2\frac{1}{2}$, alt. 1 mill.

Hab. Insula Roratonga.

PITYS FILOCOSTATA, Pse.

T. discoidea, late umbilicata, tenuiuscula, radiatim oblique et remote filocostata; spira depressa, planulata, sutura bene impressa; anfr. 4, *convexi, ultimus rotundatus, umbilicus* $\frac{1}{3}$ *diametri occupans; apertura vix obliqua, subcircularis; paries aperturalis lamellis* 2 *intrantibus munitus; perist. simplex, rectum; flavido et rufo alternatim strigata, strigis flexuosis, epidermide tenui induta.*

Diam. 4, alt. 2 mill.

Hab. Insula Kauai.

Allied to *P. hystrix*, Migh. It may be distinguished at once by the thread-like character of its ribs, which are remote and shining white when the shell is in good order. It is also smaller, and the whorls are regularly convex. The radiating stripes are curved and flexuous.

PITYS ANALOGICA, Pse.

T. aperte umbilicata, solidiuscula, radiatim forte costata, costis ad peripheriam flexuosis, interstitiis transversim fere obsolete striatis; spira fornicato-convexa, apice depresso, sutura valde impressa; anfr. 7, *rotundato-convexi, lente accrescentes, ultimus ad peripheriam late rotundatus; apertura vix obliqua, semilunaris, lamellis* 7 *coarctata,* 2 *parietalibus,* 3 *basalibus,* 2 *columellaribus; perist. simplex; flavido et rufo irregulariter radiatim strigata.*

Diam $5\frac{1}{2}$, alt. 3 mill.

Hab. Insul. Marquesas.

PITYS VERECUNDA, Pse.

T. planorboidea, tenuiuscula, late umbilicata, radiatim regulariter tenuicostulata, supra planulata, sutura impressa; anfr. 6, *convexi, ultimus ad peripheriam rotundatus, umbilicus fere* $\frac{1}{2}$ *diametri occupans; apertura late lunaris, lamellis* 6 *coarctata,* 2 *parietalibus,* 3 *basalibus, unaque colamellari; perist. simplex; flavida, pallide rufo flexuoso-strigata.*

Diam. 5, alt. $1\frac{1}{2}$ mill.

Hab. Insul. Marquesas.

The above two species are the first of the genus discovered on the Marquesan Islands.

Genus ENDODONTA, Alb.

This genus was founded by Dr. Albers on *H. lamellosa*, Fér., which represents a group of species of peculiar characters inhabiting the Hawaiian Islands, and confined to that locality. Most authors have confounded it with *Pitys* (Beck), from which it differs in both shell and animal.

At the Tahitian Islands a group of species occurs nearly related to the above, which are also confined to that locality, none similar having been discovered in any other part of Polynesia. They are peculiar in being loosely coiled, and more widely umbilicate than any other species of *Helicinæ*; they are widely distributed over all the islands, and are more or less nearly related to each other and to the

above genus. I note that *acetabulum*, Pse., should be compared to *ficta*, Pse., rather than *obolus*, Gld., as is done by Dr. Pfeiffer. I add the following new species:—

ENDODONTA CELSA, Pse.

T. orbicularis, solidiuscula, late umbilicata, tenuissime radiatim creberrime striatula, rufo et albido pallide tessellata; spira elevata, apice obtusiusculo, nucleus rufescenti-fuscus, sutura bene impressa; anfr. 7, convexi, interdum concentrice elevato-striati, rarissime sulcati aut angulati, ultimus ad peripheriam obtuse angulatus, subtus rotundatus; apertura obliqua, fere circularis, lamella unica in anfr. penultimo munita.

Diam. 7, alt. $3\frac{1}{2}$ mill.

Hab. Insula Raiatea.

Genus MICROCYSTIS.

Microcystis, Beck, Index Molluscorum, 1837, p. 2.

Dr. Beck enumerates six species in illustration of the above genus, three inhabiting the West Indies and three Polynesia. The former are *H. cubensis*, Pfr. = *trifaciella*, Beck (also the type of the genus *Cystycopsis*, Mörch), *H. pellicula*, Fér., locality doubtful, but of West-Indian form, and *H. pictella*, Beck, which remains undetermined. These species are globose in shape, ornamented more or less with coloured bands, of a West-Indian type well-known to collectors.

The Polynesian species are *H. ornatella*, Beck, *adamsii*, Pfr. = *filiceti*, Beck, and *amœnula*, Beck, to which I have lately added a beautiful little species from the Marquesas Islands, viz. *marquesana*, Pse. The above are much smaller than the West-Indian species, and not so globose, excepting the last, and will not, in my opinion, prove to be congeneric with them. They stand as anomalies in the Polynesian fauna, being confined to islands in the extreme easterly portion of Polynesia, and are not represented elsewhere.

It is not improbable that the three species cited by Dr. Beck from Polynesia are varieties of one, as they are all reported from Rapa, a very small island (but $6\frac{1}{2}$ miles long) in the Austral group, about 400 miles south of Tahiti.

Dr. Pfeiffer credits *adamsii*, Pfr., to both Rapa and Pitcairn, which is probably an error. If it occurs at Pitcairn, it is without much doubt distinct from Dr. Beck's species.

Authors have lately extended this genus to embrace a variety of forms, especially a large group of thin, fragile, glassy species, widely distributed over the Polynesian and Papuan Islands, and extending to Australia. They appear to have overlooked the fact that Dr. Beck recognized them as being distinct from *Microcystis*, and arranged them under the generic name of

HELICOPSIS, Beck.

It was injudicious on the part of Dr. Beck to adopt the above name, as it had been used previously by Fitzinger, although the

latter proved to be a synonym of *Theba*, Leach. He cites four species as types: the first, *H. corne*, I do not find mentioned by any other author, and has not been published; the three remaining are from Polynesia and agree in their characters, leaving no doubt as to the genus intended; they are *brunnea*, Anton, = *glandula*, Beck, *subtilis*, Anton, = *vitrinella*, Beck, and *orbis*, Beck.

The animal of the species I have had an opportunity of examining is rather slender and elongate, tapering gradually posteriorly to a point, and provided with a glandular opening, slightly raised, at about an equal distance between the extremity of the foot and the shell; the mantle wholly included within the shell. They should therefore be arranged in the family *Stenopidæ*, under the genus *Ariophanta*, rather than *Nanina*.

The species enumerated in the following catalogue vary considerably from the type; their generic relations cannot be determined until the animals have been examined. The columella of the typical species is simple, occasionally slightly everted; in others it is more or less callous, sometimes dentately so, or the callosity is transverse to the columella.

The type is a depressed form, orbicular in shape, either rounded at the periphery or slightly angulate; other species are acutely angulate, assuming a trochiform shape, one form of which M. Mousson has lately separated under the generic name of *Trochonanina*. Other species assume a conical shape, such as *H. cultrata*, Gld., and *conula*, Pse., which would, by some authors, be ranked under the European genus *Conulus*.

Genus Trochomorpha, Alb.

Trochomorpha trochiformis, Pfr.

The above is one of several Férussacian species which appear by name in his 'Prodrome,' of which the types are probably lost, as they are not described in his great work on land-shells, nor recorded by M. Deshayes. The first description of the above is that by Dr. Pfeiffer, from a Tahitian species, which is generally accepted as the type, although the locality given by Férussac is the island of Mauritius.

As there is at least a doubt as to the species originally named by Férussac, I think proper to attach the name of Dr. Pfeiffer to the above as author.

I have received several distinct species from collectors under the name *trochiformis*, Fér.

Dr. Pfeiffer's type inhabits the island of Raiatea. It occurs of larger size, and occasionally wholly dark brown or wholly pale yellow; a variety is rarely met with more depressed than the type, of a whitish or pale yellow colour encircled by a single narrow dark brown line or band; base ornamented the same. On the island of Moovea, where the species also occurs, this variety prevails and assumes the size and shape of the type.

On Tahaa, adjoining Raiatea, the type occurs of smaller size and more conical in shape.

The variety referred to above I distinguish by the name of

TROCHOMORPHA TROCHIFORMIS, var. PALLENS, Pse.

Testa plerumque depressior, albida aut pallide straminea, linea unica rufescenti-fusca cingulata.

TROCHOMORPHA NIGRITELLA, Pfr.

The above has been credited by Dr. Pfeiffer to the Sandwich Islands, which is an error. No species of its type or genus inhabits that locality; it is confined to Ponape, Caroline Islands.

A distinct variety occurs so remote from the type that it was returned to me by the late Mr. Cuming marked *H. trochiformis*, Fér. I describe it as

TROCHOMORPHA NIGRITELLA, var. OPPRESSA, Pse.

T. umbilicata, solida, trochiformis, depressa, apice obtusa; anfr. 6–6½, *planiusculi, lente accrescentes, irregulariter oblique tenuistriati, ultimus acute carinatus, basi convexus; apertura securiformis; perist. simplex, incrassatum, interdum marginibus callo junctis; flavescens, juxta suturam fascia rufescenti-fusca cingulata, basi rufescenti-fusca, margine flavescente.*

Diam. 13½, alt. 6 mill.

Hab. Insula Ponape.

The above differs from the type in being more trochiform in shape, with the whorls nearly flat and smoother, and also in colour.

TROCHOMORPHA CONTIGUA, Pse.

Trochomorpha congrua, Pse, Am. Journ. Conch. vol. iv. 1868, p. 154.

Name preoccupied, changed as above.

TROCHOMORPHA EXCLUSA, Hombr. non Fér.

Trochomorpha exclusa, Voy. au Pôle Sud, p. 24, pl. 7. f. 14–17.

The above, collected at the Tahitian Islands, is *Swainsonii*, Pfr., and should not be connected with the Papuan species.

Genus PARTULA, Fér.

Having in preparation a monograph of the above genus in which the distribution and variation of its species will be fully treated of, I merely record descriptions of the following new species:—

PARTULA PELLUCIDA, Pse.

T. oblongo-ovata, anguste perforata, tenuis, pellucida, striis longitudinalibus transversisque granulosa; spira conica; sutura impressa, marginata; anfr. 4½, *plano-convexi, ultimus* ½ *longitudinis testæ haud æquans; apertura verticalis, ovata; perist. subincrassatum, album, vix expansum; columella supra vix dilatata, fere recta; albido-cornea.*

Long. 12, diam. $6\frac{1}{2}$ mill. Apert. long. 5, diam. $3\frac{1}{2}$ mill.

Hab. Guadalcanar, insul. Solomon.

This delicate little species was collected at the above locality by John Brazier, Esq.

It is the nearest allied to *P. minuta*, Pfr. It differs in being more slender, thinner, the spire elongate, the aperture smaller, the surface more distinctly granulose, and the suture marginate.

PARTULA FABA, var. SUBANGULATA, Pse.

T. anguste perforata, dextrorsa, conico- interdum abbreviato-ovata, solida, lævigata, striis incrementi notata, rufescenti-fusca, juxta suturam fascia flavescente cingulata, vel flavescente, fascia fusca ad suturam, interdum omnino straminea aut flavescente aut rufescenti-fusca; anfr. 6, convexi, ad suturam subangulati, ultimus plerumque tumidiusculus; columella superne tuberculato-callosa, late dilatata; perist. intus callosum, late expansum, margine dextro tuberculato-calloso, superne sinuato, fuscum, callo albido; apertura oblongo-ovalis, subauriformis.

Alt. 28, diam. 15 mill.

Hab. Insula Tahaa.

The metropolis of *P. faba*, Mart., is on the island of Raiatea; on the adjoining island, Tahaa, it occurs in a modified form, which we distinguish by the above name.

Subfamily SUCCINEINÆ, H. & A. Adams.

Previously to the publication of the report of the American Exploring Expedition but three species of *Succinea* were known as inhabiting Polynesia. At the present time it may rank as the metropolis of the family, not only as regards the number of its species but also types. The number will be much increased, that of the Hawaiian Islands at least four-fold.

It is impossible to define their generic, much more their specific limits, without a knowledge of the animals. However closely the shells inhabiting distant provinces may resemble each other, it will eventually appear that the genera in this family are as local in their distribution as those of the *Helicterinæ*.

The animal of *Succinea picta*, Pfr., inhabiting St. Helena, given by H. and A. Adams as the type, differs certainly from the European genus.

It is also doubtful whether any species of the genus *Helisiga* inhabits Polynesia. I have met with no animal corresponding to the original type of that genus. I would note that the character given to the Hawaiian species arranged under the above genus by H. and A. Adams, viz. "the mantle-margin covering the outer lip," I have not observed, nor does it appear on the figures in the Report of the American Exploring Expedition.

I class for the present all the Polynesian species under the genus *Succinea*, with the exception of two forms at either extreme of the family: the one, *Catinella*, has been heretofore classed with *Oma-*

lonyx; and the other is distinct both as to shell and animal. They are as follows:—

Genus Catinella, Pse.

T. tenuis, fragilis, planulata, depressa, scutellæformis, ovalis; spira minuta, rudimentalis, immersa, subtus concentrice sulcata; apertura perampla, magnitudinem testæ fere æquans.

The type of the above genus is *C. rubida*, Pse. (Journ. de Conch. 1870, p. 97), to which should be added *Succinea explanata*, Gld., both inhabiting Kauai, to which island the genus appears to be restricted.

The animal of the genus *Omalonyx*, inhabiting South America, is described as being semiaquatic in its habits, being found in marshes and dying when removed from the vicinity of the water. The habits of the species of the above genus are quite the reverse. They are strictly arboreal, living on the leaves of banana and other low bushes, and dying when washed by heavy rain down into the axils of the leaves holding water. The shell is attached to the animal by a ligament, for which there is a groove provided around the underside of the spire. It is but loosely attached, and may be removed from the animal while living, without apparent injury. Having unfortunately lost my notes of the animal, its description must be deferred.

Genus Truella, Pse.

Typus, *Succinea elongata*, Pse., Journ. de Conch. 1870, p. 96.

T. elongata, gracilis, tenuis; spira elongata; anfr. celeriter accrescentes; apertura posterior contracta, acuta, antice dilatata; anfr. ultimus postice convolutus.

The above peculiar type has been heretofore only known as inhabiting the Tahitian Islands, where it is represented by *Succinea procera*, Gld., and *S. infundibuliformis*, Gld. A species was unexpectedly discovered on the island of Kauai during the past year, in which the peculiarities of the genus are the most strongly expressed, and which I adopt as the type.

The shell is elongate, slender posteriorly, spire elongate, whorls rapidly enlarging; aperture contracted posteriorly by the convolution of the last whorl.

The animal is slender, tentacles small, cylindrical, gradually tapering to a slightly enlarged tip.

Succinea mammillata, Pse.

T. tenuiuscula, suboblique ovata, striis incrementi confertim et tenuiter notata, rubella aut succineo-rubescens; anfr. 3, ultimus tumidiusculus, vix obliquus; anfr. spiræ convexi, apice mammillato, sutura valde impressa; apertura oblongo-ovalis, fere recta, labro incrassato, rufo; columella margine callosa, vix arcuata, plica conspicua.

Alt. 12, diam. $7\frac{1}{2}$ mill.

Hab. Insula Nukuhiwa.

The above is the first species described from the Marquesas group of islands.

The shell is rather thin, somewhat obliquely ovate, finely and closely marked by striæ of growth, of a reddish or reddish horn-colour; whorls three, the last slightly swollen and rather oblique; whorls of the spire convex, the apex mammillary, suture strongly impressed; aperture oblong-oval, almost vertical; lip thickened on its edge, red; columella but slightly curved, margin thickened, distinctly plicate posteriorly.

SUCCINEA RUBELLA, Pse.

T. tenuis, suboblique ovata, striis incrementi tenuiter rugosula, succineo-rubescens; anfr. 2½, ultimus convexus, obliquus; anfr. spiræ rotundato-convexi, apice papillari; sutura bene impressa; apertura fere recta, acute ovata, labro tenui, columella arcuata, margine incrassato; perist. simplex, marginibus callo tenui junctis.

Alt. 12, diam. 7 mill.

Hab. Insula Lanai.

Genus TORNATELLINA, Beck.

TORNATELLINA GRACILIS, Pse.

T. elongata, gracilis, tenuis, nitida, lævigata, striis incrementi tenuissime notata, fusco-cornea; anfr. 5, convexi, ultimus planulatus, interdum medio concentrice sulcatus; apertura parva, acute ovata; lamina parietalis valida, prominens; columella forte callosa, tortuosa.

Alt. 3¾, diam. 1½ mill.

Hab. Insula Kauai.

TORNATELLINA DENTATA, Pse.

T. oblongo-ovata, tenuis, fragilis, nitida, lævigata, fulvo-cornea; anfr. 4½, convexi; sutura impressa; apertura parva, acute oblongo-ovata; lamina parietalis valida, compressa, prominens; columella forte callosa, tortuosa, vix compressa, medio dente prominente munita.

Alt. 2½, diam. 1¼ mill.

Hab. Insula Hawaii.

The peculiarity of this little species is, that the columella, in addition to the usual callosity, which in this species is somewhat compressed, is furnished with a prominent tooth on its middle.

Tornatellina striata, Newc., described in Proc. Cal. Acad. 1861, p. 93, I exclude from the genus, transferring it to the genus *Leptachatina*, Gld.

Genus VERTIGO, Müller.

Dr. Gould remarked in his description of *V. tantilla*, in the 'Report of the American Exploring Expedition,' that it was the first species of its type he had met with from Polynesia. It has

been discovered since that the species abound on all the islands of the several groups, even on the low sandy Atolls.

So far as known, they may be arranged in three groups, viz.:— first, *V. nitens*, Pse., &c., white, pellucid, nearly smooth; second, *V. lyrata*, Gld., *striatula*, Pse., &c., generally oblong in shape, distinctly ribbed, aperture campanulate, modified by the transverse grooves on last whorl; and third, *V. costulosa*, Pse., more abbreviate in shape, sometimes nearly globular, finely ribbed or elevately striate, and aperture nearly circular.

The following are new species.

VERTIGO STRIATULA, Pse.

T. cylindracea, oblonga, solidiuscula, sinistrorsa, umbilicata, longitudinaliter oblique et flexuose forte costata, interstitiis transversim tenuiter striatis; anfr. 5, *rotundato-convexi, plerumque medio rotundatim angulati, ultimus vix porrectus, medio concentrice late sulcatus, circa umbilicum rotundato-angulatus, basi compressus; apex obtusus; sutura bene impressa; apertura subquadrangularis, basi rotundata, lamellis* 3 *coarctata, in pariete aperturali* 2, *primo magno, cum labro continuo, secundo mediano, interno, in margine columellari superne* 1, *ad labium juncta; peristoma continuum, crassiusculum, vix expansum et reflexum, labro postice sinuoso; rufo-castanea, costis albidis.*

Alt. $2\frac{1}{2}$, diam. $1\frac{1}{2}$.

Hab. Insula Hawaii.

VERTIGO ARMATA, Pse.

T. ovata, vix oblonga, nitidiuscula, dextrorsa, perforata, longitudinaliter tenuissime striata, interdum remote, tenuiter filo-costata, sub lente subtilissime granulosa, fulvescenti-cornea, filis albidis; anfr. $4\frac{1}{2}$–5, *rotundato-convexi; apex obtusus; apertura subquadrangularis, fere circularis, dentibus* 8 *munita, in pariete aperturali* 3, *primo maximo cum labro continuo, secundo mediano, intrante, tertio minimo, interno, in margine columellari* 1, *in marginibus basali et labiali* 4, *profunde sitis; peristoma incrassatum, rufescens, subexpansum, reflexum, marginibus disjunctis, labro postice vix sinuoso.*

Alt. 2, diam. $1\frac{1}{4}$ mill.

Hab. Insula Bolabola.

VERTIGO SIMPLARIA, Pse.

T. tenuis, obeso-ovata, dextrorsa, rimata, flavescens, longitudinaliter tenuiter striata; anfr. 3, *rotundato-convexi, ultimus planulatus; sutura valde impressa; apex obtusus; apertura fere circularis, edentata; peristoma tenue, marginibus disjunctis; columella superne patula, vix expansa.*

Alt. $1\frac{3}{4}$, diam. 1 mill.

Hab. Insulæ Marquesas.

VERTIGO COSTATA, Pse.

T. cylindracea, oblonga, solidiuscula, dextrorsa, rimato-perforata,

longitudinaliter flexuose forte costata, rufescens; anfr. 4, *rotundato-convexi, ultimus concentrice valde bisulcatus, basi compressus; apex obtusus; sutura valde impressa; apertura campanulata, basi rotundata, lamellis* 4 *munita, in pariete aperturali* 2, *primo cum labro continuo, secundo mediano, intrante, in margine basali* 1, *labiali postice* 1, *labro flexuoso; peristoma tenue, marginibus disjunctis.*

Alt. 2, diam. 1 mill.

Hab. Insula Hawaii.

Vertigo perlonga, Pse.

T. elongata, cylindrica, rimato-perforata, dextrorsa, pallide straminea, longitudinaliter filo-costata, costis obliquis, remotis, flexuosis; spira obtusa; sutura impressa; anfr. 5, *planulati, ultimus medio concentrice sulcatus, prope basin indentatus; basi compressus, circa umbilicum rotundato-angulatus; apertura subquadrangularis, vix porrecta, basi contracta, rotundata, postice bilamellata, labro superne sinuoso, unilamellata; peristoma continuum vix eversum.*

Alt. $2\frac{1}{2}$, diam. 1 mill.

Hab. Insula Oahu.

Vertigo dentifera, Pse.

T. cylindrica, solidiuscula, perforata, dextrorsa, longitudinaliter oblique tenuissime striata, rufo- aut flavo-castanea; anfr. 4, *convexo-rotundati, ultimus prope labrum brevi-bisulcatus; apertura fere circularis, postice biplicata, columella uniplicata, basi trivel quadridentata, labro vix reflexo; peristoma crassiusculum, non continuum.*

Alt. $1\frac{3}{4}$, diam. 1 mill.

Hab. Insula Roratonga.

Vertigo costulosa, Pse.

T. obtuso-ovata, interdum fere globosa, tenuis, perforata, dextrorsa, vix nitida, oblique et sparsim filo-costata; anfr. 4, *rotundato-convexi, tumidi, ultimus prope labrum, interdum brevi-bisulcatus; apex obtusus; sutura valde impressa; apertura fere circularis, dentibus* 5–6 *coarctata, in pariete aperturali* 2, *primo juxta labrum, secundo maximo, prominente, lamelliformi, intrante, in margine columellari* 1, *in marginibus basali et externo,* 2–3 *profundo sitis; peristoma subreflexum, crassiusculum, marginibus plerumque callo junctis; rufo- vel flavo-cornea.*

Alt. $1\frac{3}{4}$, diam. 1 mill.

Hab. Insula Hawaii.

Vertigo bacca, Pse.

T. cylindracea, abbreviata, tenuiuscula, dextrorsa, perforata, lævigata; apex obtusus; anfr. 4, *rotundati, ultimus concentrice bisulcatus; apertura fere circularis; in pariete aperturali bilamellata, columella unidentata; labrum vix eversum; pallide fusca.*

Hab. Kalapana, Insula Hawaii.

The above description was drawn up several years since from specimens collected at Kalapana, district of Puna, Island of Hawaii; as they have been lost, I furnish the precise locality, to enable collectors to recover the type.

Before leaving this genus I would remark that, of the first type referred to above, three species have been described, viz. *V. nitens*, Pse., *pediculus*, Shutt, and *nacca*, Gld. They are widely distributed, specimens having been received from the following islands:—Apaiang, Ebon, Upolu, Aitutake, Roratonga, Tahiti, Bolabola, Raiatea, Nukuhiwa, Hawaii; they agree in their general characters as to size, shape, texture, and colour, with slight local variations. At some localities they are wholly dextral, at others wholly sinistral. They differ more widely as to the number and position of the teeth in the aperture: usually there are two teeth on the posterior wall of the aperture, which are separate or joined in a bifid manner, rarely but one; the columellar tooth is constant; on the base of the outer lip, generally three, at regular intervals, occasionally but two; and in addition very small rudimentary teeth are rarely met with at different parts of the aperture.

Having received but forty or fifty specimens, I am at present unable to offer a decisive opinion as to the value of the several species.

I note also that *V. tantilla*, Gld., occurs on all the islands of the Tahitian group, and *V. costulosa*, Pse., on all those of the Hawaiian. The species of this genus will prove to be more widely distributed than those of any inhabiting Polynesia.

Operculated Genera.

Genus Omphalotropis, Pfr.

Since the publication of a monograph of the above genus in 'Journ. de Conch.' 1869, a number of species have been described which confirm the distribution and variation as there given.

The typical form of the genus, the shells of which are carinate or angulate around the umbilicus, more or less ornamented with colours, and of an ovate shape more or less modified, enters Western Polynesia from the East Indies, extending south to the Samoas and thence over the Papuan Islands. Passing east, however, to the Tahitian group and the other islands of Eastern and Southern Polynesia, the genus undergoes a wide variation, so much so that several of the species have been classed with other genera.

Their operculum and animal clearly connect them with the above genus. One of the forms I have distinguished by the subgeneric name *Scalinella*, which may be found faithfully illustrated on Plate 7, Journ. de Conch. 1869. One remaining I now separate under the name of

Subgenus Atropis, Pse.

Testa oblonga, interdum cylindracea, rare ovata, imperforata vel anguste perforata, unicolor; apertura ovata, fere circularis;

perist. simplex, continuum, ad anfr. penultimum adnatum aut disjunctum, interdum vix porrectum; anfr. ultimus sæpe ad peripheriam subangulatus.

Animal operculumque gen. Omphalotropis, *Pfr., persimilis.*

The shell of this genus is elongate, sometimes cylindrical, rarely ovate, imperforate, in the species of ovate form narrowly perforate; aperture ovate, occasionally circular; peristome continuous, sometimes disconnected from the penultimate whorl and very slightly porrected. The last whorl is frequently obtusely angulate on its periphery, of one colour, usually pale yellow or reddish.

The species furthest removed from the type of *Omphalotropis*, viz. *A. viridescens*, Pse., and *ventricosa*, Hombr., can scarcely be distinguished from genus *Blanfordia*, A. Ad.; those approaching the nearest, *vescoi*, Dohrn, &c., are of small size, narrowly perforate, abbreviately ovate, but wanting the angulation around the umbilicus. In the following catalogue they are separated from the typical forms.

Genus Cyclomorpha, Pse.

Typus, *Cyclostoma flavum*, Brod. P. Z. S. 1832, p. 59.

Testa turbinata, subglobosa, solida, lævigata aut spiraliter striata, perforata; apertura fere circularis; peristoma simplex, subincrassatum, callo tenui continuum.

Operculum ei gen. Omphalotropis, *Pfr. similis.*

The shell of the above genus differs widely from any of the genera of the subfamily *Realiea*, Pfr. From its similarity to those of the genus *Ostodes*, Gld., the species have been heretofore included by Drs. Pfeiffer and Gould in that genus. Having received a number of specimens collected alive with the operculum, I discover it to be certainly related to the above subfamily and to *Cyclostominæ*; while the genus *Ostodes* belongs to the subfamily *Cyclophorinæ*. I also notice that *Ostodes œnomphalus*, Phil., arranged by Dr. Pfeiffer next to *C. flavum*, Brod., and included by Dr. Gould in his genus *Ostodes*, is described as being carinately angulate around the umbilicus, one of the peculiar characters of the genus *Omphalotropis*.

It should be connected with the above genus, serving to confirm its position in the subfamily *Realiea*, Pfr.

Its locality is unknown; the other species inhabit the extreme easterly portion of Polynesia.

Having had an opportunity of examining the operculum of three species of the genus *Ostodes*, I extend the description given by Dr. Gould as follows:—

Genus Ostodes, Gld.

Ostodes, Proc. Bost. Soc. vol. viii. 1861, p. 283.

Operculum tenue, membranaceum, circulare, margine tenuissimo, lacerato; extus fornicato-convexum, nitidum; multispirale; anfr. 8–10, *lente accrescentes, fere æquales; sutura linearis, nucleo centrali; apex vix elevatus, papillatus; subtus regulariter concava.*

Genus Chondrella, Pse.

Typus, *Cyclostoma parvum*, Pse. P. Z. S. 1864, p. 674.

Testa globoso-conica, tenuiuscula, striata, imperforata, vel vix rimata; apertura fere circularis; peristoma simplex, tenue, marginibus late disjunctis; columella callo appresso, late dilatato induta, locum umbilici tegens.

Animal tentaculis nullis, oculis supra caput immersis.

Operculum testaceum, solidiusculum, pallidum, nitidum, oblongo-ovatum, latere dextro fere recto, utrinque rotundatum; extus planum, lævigatum, nucleo obsoleto, marginibus anterioribus et lateralibus angulatis; subtus vix concavum, margine rotunde calloso, quasi costato.

The above genus is peculiar in all respects, animal, shell, and operculum. It should be classed with *Helicinidæ*. It is widely distributed over the islands of Southern Polynesia. Most common at the Hervey group, where Mr. Garrett has had ample opportunity of examining the animal alive. It has positively no tentacles, the eyes being immersed on the head in the situation usually occupied by tentacles.

Cyclostoma minutissimum, Sow., the generic position of which has been undecided, belongs to this genus. It inhabits Pitcairn Island.

Genus Palaina, Semp.

Palaina, Semp. Journ. de Conch. 1865, p. 291.
Pupoidea, Pse. Am. Journ. Conch. 1865, p. 289.

The two genera above are no doubt synonymous. As there appears to be a difference of opinion as regards the relation of this genus to those of the *Diplommatinacea*, by reason partly of a want of knowledge of the characters of its operculum, I furnish the description of that of *P. scalariformis*, Pse., inhabiting the Caroline Islands.

Operculum membranaceum, circulare, multispirale; anfr. 4–5, lente accrescentes, sutura lineari; extus nitidum, medio depresso-concavum, anfr. ultimus rotundatus, margine tenui; subtus vix concavum.

The outer side is regularly concave to the last whorl, which is rounded, so that the operculum when laid down would rest on its margin.

It requires repeated efforts and careful manipulation to separate an operculum, an eighth of a millimetre in diameter, from the animal. If macerated in water until the animal matter becomes soft, the operculum is liable to fall to pieces; while it is impossible to separate it from the animal in a dried state. I have been successful in obtaining the opercula of all the genera inhabiting Polynesia, excepting *Electrina*, Gray, of which I have seen no specimens.

Genus Helicina, Lam.

Under this genus I merely record the following descriptions and synonyms.

The following species, credited to Polynesia, I exclude from the catalogue, viz. :—

H. crassilabris, Phil., does not inhabit the Sandwich Islands.

H. bicolor, Pfr., is credited to Tahiti, which is without much doubt an error, as no species of its size inhabits Polynesia except *H. maugeriæ*, Gray, from which, or any of its varieties, it differs widely.

Helicina maugeriæ, Gray.

The type of this species is a thick solid shell, rather bluntly angulate at the periphery, and may always be recognized by the colour of its basal callosity, bright yellow, which is persistent; the basal callosity of the variety *H. rubicunda*, Pse., is equally persistent, of a dark red. On both the callosity is very thick.

At the same locality a form occurs which I consider a variety of the above, although it differs rather widely in most of its characters; it is more depressed, acutely angulate at the periphery, white or whitish in colour, encircled above by one or two narrow reddish lines, apex usually pale yellow, and the basal callosity thin and white. I distinguish it by the name of

Var. albinea, Pse.

T. crassa, lenticularis, sublævigata, vix nitida, tenuissime radiatim et arcuatim striata, albida, supra lineis 1–2 *rufescentibus cingulata, infra albida; spira depressa, obtusa, plerumque pallide flavescens; anfr.* 5, *planulati, indistincte marginati; ultimus basi convexus, subtus ad peripheriam distincte marginatus; apertura lunaris, intus pallide straminea; peristoma intus callosum, albidum; callus basalis tenuis, albidus.*

Diam. $12\frac{1}{2}$, alt. $5\frac{1}{2}$ mill.

H. maugeriæ, Gray, and all its varieties, occur only on the island of Raiatea.

Helicina calliostoma, Pse.

T. crassa, globoso-conoidea, tenuissime radiatim striata, omnino pallide straminea aut albida, interdum rufescente fasciata vel maculata; spira vix elevata, conoidalis; sutura bene impressa; anfr. 5–6, *plano-convexi, ultimus ad peripheriam rotundatus, basi convexus; apertura obliqua, lunaris; columella brevis, incrassata, supra vix dilatata, cum perist. angulum acutum formans; peristoma valde incrassatum, interdum duplicatum, album, vix expansum et eversum, marginibus late disjunctis; callus basalis tenuis, parvus, albidus.*

Alt. $7\frac{1}{2}$, diam. $7\frac{1}{2}$ mill.

Hab. Insulæ Marquesas.

The colour of this species is probably much more varied than noted above.

Helicina tahitensis, Pse.

Helicina pisum (Hombr. non Phil.) Voy. Pôle Sud, vol. v. p. 44, pl. 11. f. 18–22.

T. globoso-conoidea, crassa, tenuissime radiatim striata, omnino straminea aut albida, interdum rufescens, juxta suturam straminea, apex semper straminea; spira conoidea, convexa, obtusa; anfr. 5, *convexiusculi, ultimus ad peripheriam rotundatus vel indistincte angulatus; callus basalis, nitidus, albidus, circumscriptus; apertura fere luñaris; perist. simplex, rectum, incrassatum; columella arcuata, simplex, cum perist. continua.*

Diam. 7, alt. $5\frac{1}{2}$ mill.

The above, collected at the Tahitian Islands, was confounded by M. Hombron with a species inhabiting the Hawaiian Islands described by Dr. Philippi.

Helicina guppyi, Pse.

Helicina humilis (Guppy, non Hombr.), Ann. Nat. Hist. ser. 4, vol. i. p. 434 (1868).

To prevent confusion I alter the name of the above West-Indian species, which was preoccupied for one inhabiting Polynesia.

Helicina colorata, Pse.

Helicina colorata, Pse. Am. Journ. Conch. 1868, p. 156.
Helicina anaaensis, Mouss. Journ. de Conch. 1869, p. 66.

The above is the only species inhabiting the island of Annaa, where it was collected by Mr. Garrett. The above name was given to it by reason of the many variations of colour it passes through. It is wholly whitish, or of different shades of yellow or red, sometimes banded with the same colours; occasionally the last whorl is yellow, and the spire bright crimson.

Helicina flavescens, Pse.

Helicina flavescens, Pse. Am. Journ. Conch. 1867, p. 228.
Helicina pacifica, Pse. Am. Journ. Conch. 1865, p. 291.

The redescription of the above species by myself arose from omitting to name the specimens in my collection when first described. I retain the above name as being more appropriate and its description more full.

Genus Taheitia.

Taheitia, H. & A. Ad. Ann. Nat. Hist. 1863, p. 19.

The chief and, I may add, the only peculiarity which serves to distinguish the above genus from *Truncatella* is its operculum. The other characters mentioned by Messrs. Adams, viz. the porrection of the last whorl and its being disconnected from the penultimate whorls, are not constant.

Taheitia aurantia, Gld., can scarcely be distinguished from *Truncatella pacifica*, Pse., in any of its characters except the operculum. *Taheitia pallida*, Pse., is also in all respects a *Truncatella* except the operculum.

The East-Indian species *wallacei*, H. Ad., and *clathrata*, H. Ad. & Ang., are more characteristic of this genus than the Polyne-

sian, excepting the type *T. porrecta*, Gld. I am of opinion, however, that several species described as *Truncatella* will prove to belong to the above genus when the operculum is examined.

TAHEITIA SCALARIFORMIS, Rve.

Truncatella scalariformis, Rve. Proc. Zool. Soc. 1842, p. 197.
Truncatella arcticostata, Mouss. Journ. de Conch. 1869, p. 68.

The above was first collected by the late Mr. Cuming at the island of Annaa, and since by Mr. Garrett. It is common about the roots of the cocoa-nut trees, and is the only species of its genus inhabiting the above locality.

TRUNCATELLA CONCINNA, Pse.

T. imperforata, cylindracea, elongata, tenuiuscula, nitida, alba, straminea vel rufo-cornea, confertim et recte costulata, costis in anfr. ultimo circa 31*; anfr. superst.* 4*, plano-convexi, ultimus ad basin cristo-costatus; apertura subobliqua, ovalis, postice vix angulata; perist. simplex, continuum, subincrassatum, album, adnatum.*

Long. 7, diam. $2\frac{1}{2}$ mill.

Hab. Insula Apaiang (*Kingsmill*).

The species nearest allied to the above with which I am acquainted is *T. scalariformis*, Rve.

TRUNCATELLA COSTELLIFERA, Pse.

T. crassa, non rimata, elongata, turrito-cylindracea, parum nitens, rubello-flavescens, longitudinaliter costata, costis rectis, compressis, in anfr. ultimo circa 20*; anfr. persistentes* 5*, convexi, ultimus circa basin compresso-costatus; apertura vix obliqua, ovalis; perist. simplex, continuum, adnatum; labrum dextrum acutum, intus vix incrassatum, extus prope marginem fortiter costatum, costa compressa, prominens, circa basin extensa, cum costa umbilicali continua.*

Long. 7, diam. $2\frac{1}{2}$ mill.

Hab. Insula Vavau (*Brazier*).

The chief peculiarity of the above species is the stout rib encircling the outer lip, which continues around the base, connecting with the usual umbilical rib, of even size throughout; there is no trace of an umbilical fissure. It was collected at the above locality by Mr. John Brazier.

Genus PLECOTREMA, H. & A. Ad.

Two species of the above genus inhabit the Hawaiian Islands, viz. *P. striata*, Phil., and *P. clausa*, H. & A. Ad.

Dr. Philippi had probably both species before him when his description was drawn up; that by Dr. Pfeiffer of the same species (Mon. Auric. 1856, p. 104) is more accurate. The description of *P. clausa* by Messrs. Adams agrees more strictly with the form I adopt as the type of that species than the one subsequently published by Dr. Pfeiffer in 'Novit. Conch.' vol. i. p. 15.

As the two species have been confounded by many collectors, I furnish a detailed description of each, drawn up from mature specimens, of which I have had an opportunity of examining a large number.

PLECOTREMA STRIATA, Phil.

Auricula striata, Phil. Zeit. f. Mal. 1846, p. 98.
Plecotrema striata, Pfr. Mon. Auric. 1856, p. 104.

T. crassa, imperforata, globoso-conica, subovata, nigra, spiraliter impresse striata, striis rare inæqualiter distantibus, interstitiis planis, striis remote hispidulis; spira conica, mucronata, convexiuscula; sutura linearis; anfr. 7, ultimus tumidiusculus, ½ longitudinis testæ fere æquans, basi vix attenuatus; apertura fere verticalis, oblonga, postice acuta, vix contracta, basi rotundata, nigricans vel cinereo-nigrescens; plicæ parietales 2, lamelliformes, superior perobliqua, altera extus bifida, valde compressa, elevata, profunde intrans; plica columellaris valida, transversa; peristoma rectum, acutum, marginibus plerumque callo lato tenuissimo junctis, dextro intus, dimidio anteriore et circa basin prope marginem calloso, bidentato; columella extus ad marginem vix elevato-laminata, infra juxta regionem umbilicalem vix crispata.

Dimens. 8 × 5, vel 5 × 3 mill.

Hab. Insula Oahu.

This species is constant in its characters, and distinct from all varieties of *P. clausa*, H. & A. Ad.; the shell is black, solid, engraved concentrically with impressed striæ, which are generally regular; but occasionally one is omitted, leaving the interspaces wider; the interstices are flat; the last whorl is swollen, about one half the length of the shell; the aperture is very slightly oblique, acute posteriorly, more so than in *P. clausa*, and in some specimens constricted, caused by a depression around the upper part of the last whorl near the suture; the lamellæ on the inner lip are oblique, more compressed and prominent than in *P. clausa*, the lower one especially, which passes round far within the aperture; the outer lip on its edge is acute, on its anterior half and around the base, just within the margin, it is slightly callous, on which part the teeth are placed, which are smaller than those in *P. clausa*. The columella is bordered by an elevated lamina; the aperture is blackish or dark cinereous; the teeth and lamellæ white; the striæ are furnished with remote bristly hairs. The characters by which the above may be readily distinguished from *P. clausa* are its black colour, larger size, dark aperture, not being ribbed or lirate but striate, the aperture being more open, the lamellæ on the wall of the aperture compressed and prominent, the teeth on outer lip smaller and the callosity not so thick. These characters are constant, even in specimens of the smallest size.

PLECOTREMA CLAUSA, A. Ad.

T. imperforata, ovato-conoidea, crassa, vix nitidula, spiraliter costulata aut lirata, costis rotundatis, interstitiis setulis munitis et lon-

gitudinaliter tenuiter striatis, pallide fulva vel rufescenti-fusca, rare indistincte fasciata; spira conica, apice acuto, vix mucronato; anfr. 7, planiusculi, ultimus convexus, $\frac{1}{2}$ longitudinis testæ fere æquans, basi vix attenuatus; apertura vix obliqua, oblonga, angusta, ringens, basi anguste rotundata, postice acute angulata; plicæ parietales 2, superior compressa, perobliqua, cum labro callo juncta, altera bifida; plica columellaris compressa, transversa; labrum dextrum extus incrassatum, intus ad marginem valde callosum, fortiter bidentatum; apertura pallida, albida.

Dimens. 5×3 vel 4×2 mill.

Hab. Insula Hawaii.

This species is rare; it is distinctly roundly ribbed, and the teeth of the aperture are very strongly developed. It varies considerably, the grooves becoming narrower and the interspaces taking a flattened lirate shape. The grooves and striæ of this and *P. striata* are furnished with remote hairy bristles, which fall off when they become dry, and are therefore seldom preserved on cabinet specimens. The largest specimens, lirate and of a reddish colour, are usually mistaken for *P. striata*, Phil. This species never attains to the size of *P. striata*, and is never black.

The species inhabiting the Island of Bourbon and registered by M. Deshayes in his work on the Mollusca of that island as *P. striata*, Phil., with a doubt, agrees with the type of the above species. I find, on comparison, no characters to separate them.

LAIMODONTA CONICA, Pse.

Laimodonta conica, Pse. Proc. Zool. Soc. 1862, p. 242; Am. Journ. Conch. 1861, p. 101, pl. 12. f. 15.

Laimodonta anaaensis, Mouss. Journ. de Conch. 1869, p. 63, pl. 5. f. 1.

The above was originally described from specimens collected in Central Polynesia. It was afterwards discovered by Mr. Garrett at the Island of Annaa, where it attains to a larger size. It varies in colour; but the other characters of the shell are identically the same in both localities.

MELAMPUS MUCRONATUS, Gld.

Melampus mucronatus, Gld. Proc. Bost. Soc. 1849; Rep. Am. Exp. Ex. 1852, p. 204, fig. 242.

Ellobium oryza, H. & A. Ad. Proc. Zool. Soc. 1854, p. 8.

Auricula oryza, Pfr. Mon. Auric. 1856, p. 141; Novit. Conch. vol. i. p. 28, pl. 7. f. 17–19.

I have received from Annaa fifty or more specimens of *M. oryza*, H. & A. Ad., the only species of its type inhabiting that small atoll, and type specimens of *M. mucronatus*, Gld., from the collection of the American Exploring Expedition, found at Raraka, a short distance from Annaa.

The two are synonymous, although the descriptions vary. The Raraka specimens have more colour, and are rather smaller. The

most essential difference between the two descriptions is, that *M. oryza* is described as having but three plaits on its outer lip, while *M. mucronatus*, Gld., has eight; the plaits decrease in size as they recede from the base, so that on many specimens the posterior ones are quite small or become obsolete; the mucronation is indistinct on most specimens, the basal striæ constant. I would add to the descriptions that the spire is very finely striate longitudinally, and the last whorl slightly depressed posteriorly, giving the spire a slender appearance. The species is certainly distinct, and not a variety of *M. luteus*, Quoy, as suggested by Dr. Gould. The latter species I have in all stages of growth from the same locality.

The following synonym was omitted above.

ATROPIS PRODUCTA, Pse.

Realia producta, Pse. Proc. Zool. Soc. 1864, p. 673.
Hydrocea raiatensis, Mouss. Journ. de Conch. 1869, p. 67.
Hab. Insulæ Raiatea et Tahaa.

On comparison of a large number of specimens, the above will be found to vary considerably. The type is represented on the island of Bolabola by *A. bolabolensis*, Dohrn, and at Tahiti by *A. terebralis*, Gld. *A. elongata*, Pse., inhabiting Raiatea, is more distantly related to it.

Catalogue of Genera and Species.

The whole number of species of land-shells known as inhabiting Polynesia is 626.

In the following Catalogue the *Helicterinæ* are omitted, a list having been lately published in the Society's 'Proceedings' (1869, p. 644), to which but one species has been added since.

The genera and number of species of each are as follows:—

INOPERCULATA.

Helicterinæ, 223.
Vitrina, Drap., 2.
Succinea, Drap., 26.
Truella, Pse., 3.
Catinella, Pse., 2.
Carelia, H. & A. Ad., 6.
Chloræa, Alb., 1.
Tornatellina, Beck, 18.
Lamellina, Pse., 2.
?*Bulimus*, Scop., 2.
Stenogyra, Shutt, 5.
Partula, Fér., 63.
Vertigo, Müll., 19.
Rhysota, Alb., 1.
Hyromia, Risso, 1.
Trochomorpha, Alb., 21.
Endodonta, Alb., 10.
Pitys, Beck, 33.
Microcystis, Beck, 4.
Helicopsis, Beck, 30.
?*Helix*, Linn., 10.

OPERCULATA.

Diadema, Pse., 3.
Cyclophorus, Mont., 1.
Ostodes, Gld., 5.
Registoma, Hass., 1.
Pupina, Vign., 1.
Palaina, Semp., 15.
Moussonia, Semp., 1.
Cyclostomus, Mont., 1.
Omphalotropis, Pfr., 16.
Atropis, Pse., 18.

Scalinella, Pse., 3.
Cyclomorpha, Pse., 2.
Assiminea, Gray, 5.
Helicina, Lam., 37.
Chondrella, Pse., 3.
Electrina, Gray, 1.
Truncatella, Risso, 3.
Taheitia, H. & A. Ad., 4.

AURICULIDÆ.

Cassidula, Fér. 1.
Pythia, Bolt., 3.
Plecotrema, H. & A. Ad., 2.
Melampus, Mont., 15.
Laimodonta, H. & A. Ad., 2.
Pedipes, Adans., 1.
Blauneria, Shutt., 1.

Inoperculata	482
Operculata	120
Auriculidæ	25
Total species	627

The localities given may be relied on as correct, all report to the contrary notwithstanding. Such as are doubtful are so marked. A few of the species occur on more than one island; of such I have given what I suppose to be the original locality, or the one which may be regarded as the metropolis of the species at present.

The generic position of a few species of *Helices* is not determined; they have been arranged provisionally under the genus *Helix*. Species of aberrant form are classed under the genera to which they are the nearest related, separated by asterisks.

INOPERCULATA.

Subfamily VITRININÆ.

VITRINA, Drap.
fusca, *Pse.* Marquesas.
subviridis, *Pse.* Marquesas.

Subfamily SUCCINEINÆ.

SUCCINEA, Drap.
bernardia, *Recl.* ?Tahiti.
canella, *Gld.* Maui.
caduca, *Migh.* Oahu.
cepulla, *Gld.* Hawaii.
costulosa, *Pse.* Tahiti.
crocata, *Gld.* Upolu.
fragilis, *Soul.* Hawaii.
gouldiana, *Pfr.* Tahiti.
guamensis, *Pfr.* (pacifica, *Beck.*). Guam.
humerosa, *Gld.* (tahitensis, *Pfr.*). Tahiti.
labiata, *Pse.* Raiatea.
lumbalis, *Gld.* Hawaii.
mamillata, *Pse.* Marquesas.
manuana, *Gld.* Manua.
modesta, *Gld.* Upolu.
newcombiana, *Garr.* Hawaii.
pallida, *Pfr.* Tahiti.

SUCCINEA
?pudorina, *Gld.* Tahiti.
patula, *Migh.* Oahu.
putamen, *Gld.* Upolu.
punctata, *Pfr.* Hawaii.
papillata, *Pfr.* Tahiti.
rotundata, *Gld.* (aperta, *Lea*; newcombii, *Pfr.*). Oahu.
rubella, *Pse.* Lanai.
venusta, *Gld.* Hawaii.
vesicalis, *Gld.* Hawaii.

TRUELLA, Pse.
elongata, *Pse.* Kauai.
infundibuliformis, *Gld.* Tahiti.
procera, *Gld.* Moovea.

CATINELLA, Pse.
explanata, *Gld.* Kauai.
rubida, *Pse.* Kauai.

Subfamily ACHATININÆ.

CARELIA, H. & A. Ad.
bicolor, *Jay.* Kauai.
var. adusta, *Gld.* Kauai.
var. angulata, *Pse.* Kauai.
cumingiana, *Pfr.* Kauai.

CARELIA

fuliginea, *Pfr.* Kauai.
paradoxa, *Pfr.* Kauai.
turricula, *Migh.* Kauai.
variabilis, *Pse.* Kauai.
var. olivacea, *Pse.* Kauai.
var. viridans, *Pse.* Kauai.

TORNATELLINA, Beck.

achatinoides, *Pfr.* Marquesas.
antonii, *Pfr.* Rapa.
aperta, *Pse.* Tahiti.
conica, *Mouss.* Upolu.
dentata, *Pse.* Hawaii.
globosa, *Petit.* Rapa.
gracilis, *Pse.* Kauai.
hidalgoi, *Crosse.* Marquesas.
newcombii, *Pfr.* Kauai.
nitida, *Pse.* Ebon.
oblonga, *Pse.* Tahiti.
ovata, *Anton.* Rapa.
peponum, *Gld.* Kauai.
philippii, *Pfr.* Tahiti.
pusilla, *Gld.* Matea.
simplex, *Pse.* Tahaa.
trochlearis, *Beck* (pellucida, *Mühl.*). Rapa.
turrita, *Anton.* (archimedes, *Beck*; subulata, *Anton*). Rapa.

LAMELLINA, Pse.

lævis, *Pse.* Tahiti.
serrata, *Pse.* Ebon.

Subfamily BULIMINÆ.

? BULIMUS, Scop.

argutus, *Pse.* Tahiti.
turgidus, *Pse.* Tahiti.

STENOGYRA, Shutt.

beckianus, *Pfr.* (oryza, *Desh.*; vitreus, *Mühl.*). Rapa.
junceus, *Gld.* Kauai. (upolensis, *Mouss.* Upolu.)
oparanus, *Pfr.* Rapa.
pyrgiscus, *Pfr.* Oahu.
tuckeri, *Pfr.* Mangareva.

PARTULA, Fér.

affinis, *Pse.* Tahiti.
abbreviata, *Mouss.* Tutuila.
amabilis, *Pfr.* Tutuila.
annectens, *Pse.* Tahiti.
assimilis, *Pse.* Roratonga.
attenuata, *Pse.* Tahiti.
bilineata, *Pse.* Tahiti.
bicolor, *Pse.* Guam.
brazieri, *Pse.* Tutuila.
canalis, *Mouss.* Upolu.
var. semilineata, *Mouss.* Tutuila.

PARTULA

calypso, *Semp.* Peleliu.
callifera, *Pfr.* Raiatea.
citrina, *Pse.* Raiatea.
clara, *Pse.* Tahiti.
compacta, *Pse.* Raiatea.
compressa, *Pfr.* Raiatea.
conica, *Gld.* Upolu.
crassilabris, *Pse.* Raiatea.
dentifera, *Pfr.* Raiatea.
elongata, *Pse.* Moovea.
erhelii, *Morelet.* Moovea.
extensa, *Pse.* Tutuila.
faba, *Mart.* Raiatea.
var. subangulata, *Pse* (australis, *Brug.*; ? bulimoides, *Lesson*). Tahaa.
fragilis, *Terr.* Guam.
fusca, *Pse.* Raiatea.
garrettii, *Pse.* Raiatea.
ganymedes, *Pfr.* (fasciata, *Pse*). Marquesas.
gonochila, *Pfr.* ? Samoas.
gibba, *Ferr.* (mastersii, *Pfr.*). Guam.
gracilis, *Pse.* Raiatea.
guamensis, *Pfr.* (brumalis, *Rve*). Ponape.
hebe, *Pfr.* Raiatea.
var. bella, *Pse.* Raiatea.
hyalina, *Brod.* Tahiti.
leucothoe, *Semp.* Peleliu.
lineata, *Less.* Oualau.
lignaria, *Pse.* Tahiti.
lilacina, *Pfr.* Marquesas.
lineolata, *Pse.* Tahiti.
lutea, *Less.* Bolabola.
lugubris, *Pse.* Raiatea.
nodosa, *Pfr.* Tahiti.
var. trilineata, *Pse.* Moovea.
ovalis, *Pse.* Raiatea.
producta, *Pse.* Tahiti.
planilabrum, *Pse.* Tahaa.
radiolata, *Pfr.* Guam.
recta, *Pse.* Marquesas.
rosea, *Brod.* Huaheine.
rubescens, *Rve.* Tahiti.
rufa, *Less.* Oualau.
rustica, *Pse.* Raiatea.
simplaria, *Morelet.* Tahiti.
solidula, *Rve.* Tahaa.
stolida, *Pse.* Raiatea.
striolata, *Pse.* Moorea.
strigata, *Pse.* Marquesas.
tahitana, *Brug.* (auriculata, *Brod.*; tahulana, *Anton*). Tahiti.
thetis, *Semp.* Peleliu.
varia, *Brod.* Huaheine.
var. glutinosa, *Pfr.*
var. pulchra, *Pse.*
var. simplex, *Pse.*
variabilis, *Pse.* Raiatea.

PARTULA

vexillum, *Pse.* Moorea.
vittata, *Pse.* Raiatea.
umbilicata, *Pse.* Tahaa.
zebrina, *Gld.* Upolu.
var. recluziana, *Petit.* Tutuila.

Subfamily PUPINÆ.

VERTIGO, Müll.

admodesta, *Migh.* Oahu.
armata, *Pse.* Bolabola.
bacca, *Pse.* Hawaii.
costata, *Pse.* Hawaii.
costulosa, *Pse.* Kauai.
dentifera, *Pse.* Roratonga.
dunkeri, *Zel.* Tahiti.
hyalina, *Zel.* Tahiti.
lyrata, *Gld.* Oahu.
nacca, *Gld.* Hawaii.
newcombii, *Pfr.* Hawaii.
nitens, *Pse.* Ebon.
paivæ, *Crosse.* Mangareva.
pediculus, *Shutt.* Marquesas.
var. samoensis, *Mouss.* Upolu.
perlonga, *Pse.* Oahu.
pleurophora, *Shutt.* Marquesas.
simplaria, *Pse.* Marquesas.
striatula, *Pse.* Hawaii.
tantilla, *Gld.* Tahiti.

Subfamily HELICINÆ.

CHLORÆA, Alb.

pelewana, *Mouss.* Pelews.

RHYSOTA, Alb.

sowerbyana, *Pfr.* (hogoleuensis, *Guill.*; pachistoma!, *Jacq.*) Hogoleu.

HYGROMIA, Risso.

similaris, *Ferr.* Oahu.

TROCHOMORPHA, Alb.

approximata, *Guill.* (marmorata, *Jacq.*). Hogoleu.
cressida, *Gld.* Raiatea.
contigua, *Pse.* Ponape.
entomostoma, *Jacq.* Hogoleu.
eurydice, *Gld.* Upolu.
goniomphala, *Pfr.* Ponape.
kusteri, *Pfr.* Tahiti.
navigatorum, *Pfr.* Samoas.
nigritella, *Pfr.* Ponape.
var. oppressa, *Pse.* Ponape.
swainsonii, *Pfr.* (exclusa, *Hombr.*; vahine, *Hombr.*). Raiatea.
subtrochiformis, *Mouss.* Upolu.
tentoriolum, *Gld.* Upolu.
tuber, *Mouss.* Upolu.

TROCHOMORPHA

trochiformis, *Pfr.* Raiatea.
var. pallens, *Pse.* Moorea.
troilus, *Gld.* Upolu.
velata, *Jaeq.* Hogoleu.

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alta, *Pse.* Ponape.
rectangula, *Pfr.* (hapa, *Hombr.*). Marquesas.

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obconica, *Pse.* Raiatea.
schmeltziana, *Mouss.* Upolu.
var. usurpata, *Mouss.* Savaii.
tais, *Hombr.* Marquesas.

ENDODONTA, Alb.

binaria, *Pfr.* Kauai.
lamellosa, *Fér.* (frickii, *Pfr.*). Oahu.
laminata, *Pse.* Kauai.
rugata, *Pse.* Mani.

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acetabulum, *Pse.* Raiatea.
celsa, *Pse.* Raiatea.
fabrefacta, *Pse.* Raiatea.
ficta, *Pse.* Raiatea.
huaheinensis, *Pfr.* Huaheine.
obolus, *Gld.* Tahiti.

PITYS, Beck.

analogica, *Pse.* Marquesas.
atiensis, *Pse.* Atiu.
bilamellata, *Pfr.* Rapa.
capillata, *Pse.* Kauai.
complementaria, *Mouss.* Upolu.
consimilis, *Pse.* Tahiti.
contorta, *Fér.* (intercarinata, *Migh.*). Oahu.
dædalea, *Gld.* Metia.
decussatula, *Pse.* Molokai.
filocostata, *Pse.* Kauai.
gradata, *Gld.* Opolu.
græffii, *Mouss.* Upolu.
hystrix, *Migh.* Oahu.
hystricella, *Pfr.* Kauai.
hystricelloides, *Mouss.* Upolu.
imperforata, *Pse.* Roratonga.
jugosa, *Migh.* (rubiginosa, *Gld.*). Kauai.
modicella, *Fér.* Tahiti.
oparica, *Anton.* Rapa.
parvidens, *Pse.* Tahiti.
radiella, *Pfr.* (pardalina, *Desh.*; undulata, *Ferr.*). Rapa.
rotellina, *Pse.* Aitutake.
rotula, *Jaeq.* Mangareva.
roratongensis, *Pse.* Roratonga.
sexlamellata, *Pfr.* Mangareva.
stellula, *Gld.* Mani.
verecunda, *Pse.* Marquesas.

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Pitys

bursatella, *Gld.* (coarctata, *Pfr.*; excavata, *Jacq.*; streptaxon, *Rve.*; turricula, *Jacq.*). Tahiti.
fratercula, *Pse.* Roratonga.
heynemannii, *Pfr.* Tahiti.
jacquinotii, *Pfr.* (cavernula, *Jacq.*). ?Tahiti.
oceanica, *Guill.* Tahiti.
retunsa, *Pse.* Tahiti.

Microcystis, Beck.

marquesana, *Pse.* Marquesas.
ornatella, *Beck.* Rapa.
amœnula, *Beck.* Rapa.
adamsii, *Pfr.* (filiceti, *Beck.*) ?Rapa.

?Helix, Linn.

alata, *Pfr.* Lanai.
caperata, *Gld.* (newcombii, *Pfr.*). Kauai.
distans, *Pse.* Kauai.
depressiformis, *Pse.* Tahiti.
exæquata, *Gld.* Kauai.
oualauensis, *Pse.* Oualau.
prostrata, *Pse.* ?Lanai.
tenella, *Gld.* Kauai.
tiara, *Migh.* Kauai.
exserta, *Pfr.* Hawaiian Islands.

Family Stenopidæ.

Helicopsis, Beck.

aurulenta, *Beck.* Pitcairns.

Helicopsis

chamissoi, *Pfr.* Kauai.
cicercula, *Gld.* Hawaii.
electrina, *Hombr.* Guam.
firmostyla, *Mouss.* Uvea.
fornicata, *Gld.* Kauai.
frivola, *Pse.* Oualau.
kauaiensis, *Pfr.* Kauai.
lardyi, *Charp.* Rapa.
minutalis, *Fér.* Tahiti.
normalis, *Pse.* Moovea.
orbis, *Beck.* Rapa.
pauxillus, *Gld.* Maui.
pertenuis, *Gld.* Aurora.
samoa, *Hombr.* Upolu.
samoensis, *Mouss.* Upolu.
simillima, *Pse.* Tahiti.
striolata, *Pse.* Ebon.
subtilis, *Anton.* Rurutu.
subtilissima, *Gld.* Maui.
subrutila, *Migh.* Kauai.
verticillata, *Pse.* Moovea.
venosa, *Pse.* Roratonga.

Columella dentata vel callosa.

callifera, *Pfr.* Marquesas.
conula, *Pse.* Raiatea.
cultrata, *Gld.* Tahiti.
cryptoportica, *Gld.* Oahu.
ensifera, *Mouss.* Samoa.
perpolita, *Mouss.* Upolu.
upolensis, *Mouss.* Upolu.

Operculata.

Family Cyclophoridæ.

Subfamily Cyclotinæ.

Diadema, *Pse.*

biangulata, *Pse.* Atiu.
parva, *Pse.* Roratonga.
rotilla, *Pse.* Roratonga.

Subfamily Cyclophorinæ.

? Cyclophorus, Mont.

incisus, *Hombr.* Hogoleu.

Ostodes, Gld.

adjunctus, *Mouss.* Tutuila.
obligatus, *Gld.* Metia.
plicatus, *Gld.* Upolu.
var. strigatus, *Gld.* (apiæ, *Récl.*; pulverulentus, *Phil.*; albidus, *Hombr.*). Upolu.
tiara, *Gld.* Upolu.
upolensis, *Mouss.* Upolu.

Subfamily Pupininæ.

Registoma, Hass.

complanatum. *Pse.* Ebon.

Pupina, Vign.

difficilis, *Semp.* Peleliu.

Palaina, Semp.

alata, *Semp.* Nermaleh.
dohrnii, *Semp.* Palaas.
dimorpha, *Semp.* Peleliu.
inflatula, *Semp.* Peleliu.
lamellata, *Semp.* Kreiangel.
patula, *Semp.* Peleliu.
polymorpha, *Semp.* Peleliu.
pupa, *Semp.* Peleliu.
pusilla, *Semp.* Peleliu.
pyramis, *Semp.* Peleliu.
ringens, *Semp.* Peleliu.
strigata, *Semp.* Peleliu.
scalariformis, *Pse.* Ponape.
striolata, *Semp.* Aibukut.
wilsoni, *Semp.* Aibukut.

Moussonia, Semp.
typica, *Semp.* Upolu.

Subfamily Cyclostominæ.

? Cyclostomus, Mont.
carolinensis, *Pfr.* Carolines.

Omphalotropis, Pfr.
bifilaris, *Mouss.* Upolu.
var. gracilior, *Mouss.* Tutuila.
var. teretiformis, *Mouss.* Samoas.
bilirata, *Mouss.* Upolu.
var. elongata, *Mouss.* Upolu.
bulimoides, *Hombr.* Hogoleu.
cheynei, *Dohrn.* Pelews.
conoidea, *Mouss.* Upolu.
var. angulosa, *Mouss.* Savaii.
erosa, *Quoy.* Guam.
fragilis, *Pse.* Ebon.
guamensis, *Pfr.* Guam.
huaheinensis, *Pfr.* Huaheine.
lævis, *Pse.* Ponape.
navigatorum, *Pfr.* Samoa.
ovata, *Pse.* Mangaia.
parvula, *Mouss.* Upolu.
perforata, *Mouss.* Uvea.
variabilis, *Pse.* Atiu.
zebriolata. *Mouss.* Upolu.

Atropis, *Pse.*
affinis, *Pse.* Aitutake.
albescens, *Pfr.* Rapa.
bolabolensis, *Dohrn.* Bolabola.
elongata, *Pse.* Raiatea.
oblonga, *Pfr.* Marquesas.
producta, *Pse* (raiatensis, *Mouss.*). Raiatea.
rubella, *Pfr.* Marquesas.
scitula, *Gld.* Tahiti.
scherzeri, *Zel.* Tahiti.
solidula, *Pfr.* Marutu.
terebralis, *Gld.* Tahiti.
ventricosa, *Hombr.* Tahiti.
viridescens, *Pse.* Huaheine.

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abbreviata, *Pse.* Tahiti.
exigua, *Hombr.* Mangareva.
insularis, *Crosse.* Mangareva.
ochrostoma, *Pse.* Aitutake.
vescoi, *Dohrn.* Tahiti.

Scalinella, Pse.
costata, *Pse.* Tahaa.
scalariformis, *Pse.* Atiu.
tahitensis, *Pse.* Huaheine.

Cyclomorpha, Pse.
flava, *Brod.* Aunaa.
margarita, *Pfr.* Rapa.

Assiminea, Gray.
dubia, *Pfr.* Rapa.
lucida, *Pse.* Annaa.
nitida, *Pse.* Tahiti.
parvula, *Mouss.* Upolu.
pupoides, *Anton.* (oparica, *Pfr.*). Rapa.

Family Helicinidæ.

Helicina, Lam.
albolabris, *Jacq.* Tahiti.
beryllina, *Gld.* Tutuila.
var. flavida, *Mouss.* Tutuila.
calliostoma, *Pse.* Marquesas.
corrugata, *Pse.* Raiatea.
colorata, *Pse.* (anaaensis, *Mouss.*). Annaa.
discoidea, *Pse.* Tahiti.
exigua, *Jacq.* Maugareva.
flavescens, *Pse.* Roratonga. (pacifica, *Pse.* Mangaia.)
fulgora, *Gld.* Samoa.
humilis, *Jacq.* Hogoleu.
interna, *Mouss.* Savaii.
inconspicua, *Pfr.* Tahiti.
kusteriana, *Pfr.* Tahiti.
lenticularis, *Sow.* ? Pacific Islands.
laciniosa, *Migh.* Kauai.
maugeriæ, *Gray.* Raiatea.
var. rubicunda, *Pse.* Raiatea.
var. albinea, *Pse.* Raiatea.
miniata, *Less.* Bolabola.
minuta, *Sow.* Rapa.
musiva, *Gld.* Samoa.
multicolor, *Gld.* Tahiti.
oceanica, *Pse.* Apaiang.
parvula, *Pse.* Atiu.
pazi, *Crosse.* Maugareva.
pisum, *Phil.* Oahu.
plicatilis, *Mouss.* Upolu.
rotelloidea, *Migh.* (bronniana, *Phil.*). Oahu.
rohrii, *Pfr.* (marchionissa, *Jacq.*). Marquesas.
rustica, *Pfr.* Tahiti.
rugulosa, *Pse.* Tahaa.
sandwichensis, *Soul.* Oahu.
solidula, *Gray.* Toau.
tahitensis, *Pse* (pisum, *Hombr.*). Tahiti.
trochlea, *Gld.* Metia.
uberta, *Gld.* (constricta, *Pfr.*). Kauai.
villosa, *Anton.* Rapa.
zigzag, *Pse.* Oualau.
zonata, *Less.* Oualau.

Chondrella, Pse.
parva, *Pse.* Tahiti.
minutissima, *Sow.* Pitcairn.

Chondrella
striata, *Pse.* Roratonga.

Electrina, Gray.
succinea, *Sow.* Rapa.

Family Truncatellidæ.

Truncatella, Risso.
concinna, *Pse.* Apaiang.

Truncatella
pacifica, *Pse.* Oualau.
valida, *Pfr.* Samoa.

Taheitia, A. Ad.
pallida, *Pse.* Tahiti.
porrecta, *Gld.* Tahiti.
scalariformis, *Rve.* (arcticostata, *Mouss*). Annaa.
vitiana, *Gld.* Samoa.

Auriculidæ.

Cassidula, Fér.
crassiuscula, *Mouss.* Upolu.

Pythia, Bolten.
acuta, *Hombr.* Hogoleu.
pantherina, *A. Ad.* Nueniona.
var. uveana, *Mouss.* Uvea.
savaiiensis, *Mouss.* Savaii.

Plecotrema, H. & A. Ad.
clausa, H. & A. Ad. Hawaii.
striata, *Phil.* Oahu.

Melampus, Mont.
? ater, *Mühl.* Ponape.
castaneus, *Mühl.* Molokai.
fasciatus, *Desh.* Ponape.
frickii, *Pfr.* Oahu.
lucidus, *Pse.* Oahu.
luteus, *Quoy.* Ponape.
mucronatus, *Gld.* Raraka. (oryza, *H. & A. Ad.* Annaa.)

Melampus
philippii, *Kust.* Marquesas.
parvulus, *Nutt.* Oahu.
semiplicatus, *Pse.* Oahu.
semisulcatus, *Mouss.* Upolu.
striatus, *Pse.* Tahiti.
tæniola, *Hombr.* Mangareva.
violus, *Less.* Bolabola.
zonatus, *Mühl.* Marquesas.

Laimodonta, H. & A. Ad.
conica, *Pse* (anaaensis, *Mouss.*). Annaa.
bronni, *Phil.* (sandwichensis, *Soul.*).

Pedipes, Adams.
sandwichensis, *Pse.* Hawaii.

Blauneria, Shutt.
gracilis, *Pse.* Oahu.

The following description was omitted above:—

Chondrella striata, Pse.

T. globoso-conica, tenuiuscula, imperforata, dextrorsa, spiraliter elevato-striata, fulvida aut rufo-cornea; anf. 3, convexi, ultimus subventricosus; spira obtusa, sutura impressa; apertura rotundato-ovata; labrum simplex, tenue; columella fere recta, callo superne late dilatato.

Alt. $1\frac{3}{4}$, diam. $1\frac{1}{4}$ mill.

Hab. Insula Roratonga.

The above may be distinguished from *C. parva*, Pse., in being striate. It is also of smaller size.

The first specimens of the above genus forwarded to London were supposed by Mr. H. Adams to be the young of some species of *Realia*; they resemble more nearly the young of *Assiminea*. They may be at once distinguished from either by the columellar callosity.